

(11) EP 1 266 965 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 02.01.2003 Bulletin 2003/01

(51) Int Cl.⁷: **C12N 15/13**, C07K 16/00, A61K 39/395

(43) Date of publication A2: 18.12.2002 Bulletin 2002/51

(21) Application number: 02012106.7

(22) Date of filing: 24.07.1992

(84) Designated Contracting States:

AT BE CH DE DK ES FR GB GR IT LI LU MC NL SE

(30) Priority: **25.07.1991 US 735064 23.03.1992 US 856281**

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 92917108.0 / 0 605 442

(71) Applicant: IDEC PHARMACEUTICALS CORPORATION San Diego, CA 92121-1104 (US) (72) Inventors:

Newman, Roland A.
 San Diego, CA 92122 (US)

Hanna, Nabil
 Olivenhain, CA 92024 (US)

Raab, Ronald, W.
 San Diego, CA 92111 (US)

 (74) Representative: Duckworth, Timothy John J.A. Kemp & Co.,
 14 South Square,
 Gray's Inn
 London WC1R 5JJ (GB)

(54) Recombinant antibodies for human therapy

(57) A recombinant antibody comprising a human, a chimpanzee or a first Old World monkey immunoglobulin constant region and an antigen-binding portion of a second Old World monkey immunoglobulin variable re-

gion, wherein said first and second Old World monkey can be the same or different.



EUROPEAN SEARCH REPORT

Application Number

EP 02 01 2106

Category	Citation of document with indication of relevant passages	, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)	
Х	TRUNEH ET AL: "HUMORAL CYNOMOLGUS MACAQUES TO H CD4:ANTIBODY REACTIVITY XENO-HUMAN DETERMINANTS" CELLULAR IMMUNOLOGY, vol. 131, no. 1, pages XP008009974 * page 98,abstract *	19-22, 48,49	C12N15/13 C07K16/00 A61K39/395		
X	VAN MEURS ET AL: "PRODU MONOCLONAL ANTIBODIES" JOURNAL OF IMMUNOLOGICAL vol. 95, pages 123-128, * the whole document *	METHODS,	19-21, 48,49		
A	SCHROEDER ET AL: "EARLY RESTRICTION OF THE HUMAN ANTIBODY REPERTOIRE" SCIENCE, vol. 238, 6 November 1987 (1987-11-06), pages 791-793, XP008009967 * figure 1 *			TECHNICAL FIELDS SEARCHED (Int.Cl.7)	
Α	COMBRIATO ET AL: "V LAM LAMBDA GENE SEGMENTS OF IMMUNOGLOBULIN LAMBDA LI ARE SEPARATED BY 14 KB A DELETION MECHANISM" EUROPEAN JOURNAL OF IMMU vol. 21, pages 1513-152 * figure 3 *	THE HUMAN GHT CHAIN LOCUS ND REARRANGE BY A	50	C07K	
		-/			
	The present search report has been dra	awn up for all claims			
	Place of search	Date of completion of the search	6:1	Examiner	
X : part Y : part doct	THE HAGUE ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another ument of the same category innological background	11 November 2002 T: theory or principle: earlier patent do after the filling dat D: document cited it.; document cited for the company of the company of the company of the cited for the company of the cited for	i e underlying the cument, but pub le n the application or other reasons	lished on, or	

2



EUROPEAN SEARCH REPORT

Application Number EP 02 01 2106

i		RED TO BE RELEVANT	T	
Category	of relevant pass	dication, where appropriate, ages	Relevar to claim	
A	AND THREE-DIMENSION. AND VL DOMAINS OF TO ANTIBODIES SPECIFIC THE HUMAN RH-BLOOD-O THE BIOCHEMICAL JOU	FOR THE D ANTIGEN OF GROUP SYSTEM" RNAL, May 1990 (1990-05-15),	50	
P,X	TO THE VARIABLE REGENVELOPE GLYCOPROTE IMMUNODEFICIENCY VI	RUS TYPE 1 IN O WITH THE VIRUS AND OTH A CANDIDATE	19-21, 48,49	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
E in	EP 0 523 949 A (THE LIMITED) 20 January	WELLCOME FOUNDATION 1993 (1993-01-20)	1-10, 13-21, 23-27, 44-46, 48,49	SEARCHED (HALDELY)
The control of the co	* page 2, line 51 - page 3, line 27 * * page 3, line 54 - page 4, line 22 * * page 6, line 4 - line 17 * * page 7, line 51 - page 8, line 48 * * example 2 * * claims 1-30 *			
	The present search report has be	een drawn up for all claims Date of completion of the search		Examinar
	THE HAGUE	11 November 2002	S	itch, W
X : parti Y : parti docu A : tech	ATEGORY OF CITED DOCUMENTS cularly relevant if taken alone cularly relevant if combined with anoth ment of the same category notogical background	T : theory or principl E : earlier patient do after the filing dal er D : document cited is L : document cited for	e underlying t cument, but p le n the applicat or other reaso	the invention ublished on, or ion
Y : parti docu A : tech O : non-	cularly relevant if combined with anoth ment of the same category	er D ; document cited in L : document cited for	n the applicat or other reaso	ons



EUROPEAN SEARCH REPORT

Application Number EP 02 01 2106

Category	Citation of document with indicat of relevant passages	ion, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.CI.7)
A	WATANABE M ET AL: "IMI IMMUNODEFICIENCY VIRUS MONKEYS WITH SOLUBLE HI ANTIVIRAL RESPONSE" PROCEEDINGS OF THE NAT SCIENCES OF THE UNITED vol. 88, no. 11, 1991, XP001109106 1991 ISSN: 0027-8424	-INFECTED RHESUS UMAN CD4 ELICITS AN IONAL ACADEMY OF STATES,	NO ORGANI	
A	RIECHMANN L ET AL: "R ANTIBODIES FOR THERAPY NATURE, MACMILLAN JOUR GB, vol. 332, 24 March 1981 pages 323-327, XP002941 ISSN: 0028-0836			
A HOUGHTON A N ET AL: ANTIBODIES POTENTIAL TREATMENT OF CANCER" SEMINARS IN ONCOLOGY vol. 13, no. 2, 1986 XP008009975 ISSN: 0093-7754		PPLICATIONS TO THE		TECHNICAL FIELDS SEARCHED (Int.Cl.7)
11	The present search report has been			
	Place of search	Date of completion of the search		Examiner
	THE HAGUE	11 November 2002		ch, W
X : parti Y : parti docu A : tech	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another innent of the same category notogical background —written disclosure	T: theory or principle E: earlier patient docu after the filling date D: document cited in L: document cited for	the application other reasons	shed on, or

4

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 02 01 2106

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

11-11-2002

Patent docum cited in search i		Publication date		Patent family member(s)	Publication date
EP 523949	A	20-01-1993	AU CA EP FI WO HU IE JP KR NZ US ZA	662752 B2 2279892 A 2111858 A1 0523949 A1 940144 A 9302190 A1 69798 A2 922287 A1 7502882 T 255717 B1 243558 A 5876961 A 9205285 A	14-09-1995 23-02-1993 04-02-1993 20-01-1993 12-01-1994 04-02-1993 28-09-1995 27-01-1993 30-03-1995 01-05-2000 27-06-1994 02-03-1999 17-01-1994
· air had ain, ain ann an an an an an	. The last supplication from state of the c		US	5876961 A	02-03-1999

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82